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ABSTRACT

Designed to help family home care providers understand children's cognitive developmental stages, this manual provides practical suggestions for developing and evaluating children's cognitive skills. The manual is divided into four sections focusing respectively on infants, toddlers, preschool children, and school-aged children. Each section contains: (1) a brief summary of the cognitive development appropriate for the age level discussed in the section; (2) suggestions for activities to help caregivers evaluate each child's developmental level; (3) questions to help caregivers evaluate their home's potential as an environment for fostering cognitive development; (4) a variety of developmentally appropriate activity ideas; and (5) an activity evaluation form. Ordering information is also provided for a free newsletter series, "Family Day Care Connections," and the "In-Home Daycare" video which was designed to accompany this manual. (MM)

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Helping Children Develop Cognitive Skills

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Helping Children

Develop Cognitive Skills

From birth until children are ready for school, they learn to count, categorize, order, and measure the items in their world. But, they also need to learn strategies for storing and retrieving this knowledge. Children learn to communicate wants, needs, and ideas with others around them, and they also must learn to solve problems.

As a family home day care provider you can play an important role by providing the children in your care activities that help develop these cognitive skills.

Thinking and reasoning skills develop gradually in young children. The purpose of this manual is to help you understand the cognitive development unique to each stage of a child's life. These are the age level sections . . .

1 Infants

2 Toddlers

3 Preschool Children

4 School-Aged Children

At each age level of this manual, you will find . . .

- a brief summary of the cognitive development appropriate for that age;
- activities to help you evaluate the developmental level of the children you care for;
- questions to help you evaluate your home's potential as an environment for fostering cognitive development;
- a variety of developmentally appropriate activity ideas you may want to try with the children you care for; and
- an evaluation form to help you decide which activities are most successful.

This manual was prepared by . . .

Deanna Gilkerson, assistant professor of human development, child and family studies, College of Home Economics, SDSU.

A video, "In-Home Daycare," . . .

is available to accompany this manual. Copies may be borrowed or purchased from the Cooperative Extension Service, South Dakota State University, Brookings. Contact your local Extension home economist for details.

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1 Cognitive Development of Infants

The infants in your care can discriminate colors and can detect the detail of nearby objects. They prefer patterns instead of solids, and they prefer high contrast such as black and white stripes or checker board designs. Newborns begin to show preference for familiar faces and voices and are able to locate sounds in space.

At about eight to ten months of age, infants begin to understand that an object still exists even when it's not physically visible. You may observe the infant continue to stare in the direction from which a parent left the room or follow the direction of a dropped toy. Infants may no longer be as easy to distract when a favorite object is removed. Infants also will begin to communicate with others through facial expressions and different crys, coos, or babbles. Older infants will begin to do simple imitations of other's behavior.

As the infants in your care respond to what is going on around them, they are gaining cognitive knowledge. To enhance their opportunities for cognitive growth while in your care, include the infants in the activities going on in your family day care home.

Observe the Infants in Your Care

How does the infant in your care respond to different voices?

How does he react when he hears his mother speak?

Does he smile at the sound of your voice?

What attempts at communication does the infant make?

Does she smile, coo, or babble at you or at the other children in your care?

Can the older infant in your care imitate simple actions?

Pound two blocks together and then see if he can do the same. Play a simple game of peek-a-boo. Use a small, light-weight blanket to cover the infant's head. Show him how to reach up and grab the blanket off, or take turns and put the blanket on your own head. "Where is Timmy? Here he is!"

Has the infant developed object permanence yet?

Play a simple game of hide-the-toy with the infant. First make sure she can see the toy. Then, while she watches, cover it with a small blanket. Observe to see the she removes the blanket to recover the lost toy. If she is successful, it will indicate that object permanence is starting to develop. (You may find that the infant begins to show fear of strange people about this same time.)

Evaluate Your Home

Use the following checklist to determine if your family day care home has enough toys and equipment to foster infants cognitive development:

Yes	No	Small rattles and other easy to grasp infant toys.
Yes	No	Toys with noise makers inside or large bells.
Yes	No	Busy boxes with items to push, pull, or turn.
Yes	No	Black and white striped items or other high contrast objects.
Yes	No	Brightly colored or printed crib sheets, blankets, and bumper pads.
Yes	No	Pictures hung on the wall within the infant's visual path (hung by the crib, changing table, high chair, and play areas).
Yes	No	Tapes of various types of music and sounds.
Yes	No	Toys from a variety of textures.
Yes	No	Washable, non-tearable books.
Yes	No	Photo albums with pictures of the baby and close friends and relatives.

Interaction:

Do the infants in your care move from room to room for different stimulation throughout the day?
In which rooms do they spend the most time?
How often do you change what the infant can see in this room?

How often does an infant engage in face to face interaction with an adult while in your care?
How do you typically respond to a baby's babbles or bubble blowing?
Do you try to imitate back to the baby the sounds and expressions they make?
How are the infants responding to your actions?

How often do you read to, or look at books with, the infants?
Do you take time to point out the bright colors and objects in books to the infants?

Do you expose the infants in your care to different sounds in the environment?
- . . . to different types of music?
- . . . to different textures?
- . . . to different tastes?
- . . . to different smells?

Make a list of things the infants in your care have been exposed to this week.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Try These Cognitive Development Activities with Infants in Your Care

Infants learn about their world through their senses. They need to have lots of hands-on experiences with the items in their environment. As a care-giver, you can provide experiences that focus on each of the five senses: touch, sight, smell, sound, and taste.

Provide different textures of blankets, towels, and toys for the infant to experience.

Older infants can fingerpaint on the high chair tray using pudding.

Rub different items such as a soft cloth, a feather, or a cottonball against the different parts of the babies body. It will feel different when rubbed against the arm, foot, leg, or the back.

Provide finger food to older infants. Try providing several different tastes and textures for them to experience.

Cut out large shapes from a textured wallpaper book. Hook them together with a ring, or store the shapes in a plastic container. Make a colorful collection of large clear pictures that will interest baby. Look through magazines for bright, colorful faces, animals, or designs. Paste the picture onto cardboard and cover with clear contact paper. Hang these cards on the wall by the changing table or in the infant's play area. Hold him on your lap and page through some picture cards. Talk about what you see in each picture.

Find pictures of foods the infant likes to eat. Hang these near where the infant eats so she can easily see them. While she is eating a particular item, talk about the corresponding picture.

Make sound tapes for the infant to listen to. Using a tape recorder, seek out interesting sounds around your home such as the dog's bark, a cat's meow, the phone ringing, and older child singing, a squeeze toy, or a bell ringing. Play each sound to the infant and talk about where the sound came from: Listen, hear the puppy bark? That's what a puppy sounds like. Is that Mary singing?

Cut different shapes from an old wallpaper book. Sew on pieces of velcro. The infant will enjoy the fun of hearing the velcro rip apart as she separates the two pieces. (Older infants will gain eye/hand coordination and knowledge about different textures from this activity.)

Make and hang wind chimes where a breeze can catch them. You can make a simple wind chime by tying old silverware to a bent hanger. Look around your home for other items that will make interesting noises if blown by the wind.

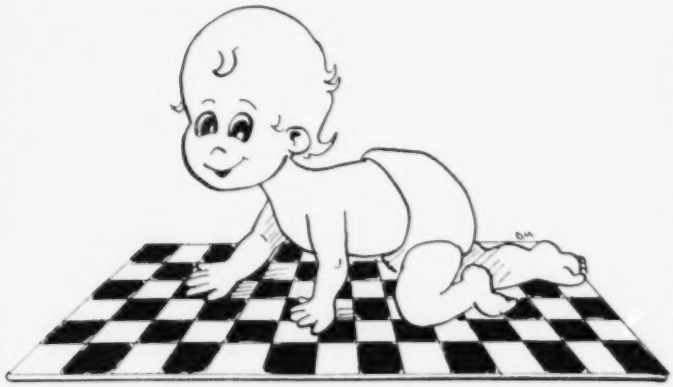
Make shake boxes. Use small milk cartons and fill them with different edible objects such as raisins or small marshmallows. Completely cover the carton with contact paper. Now shake the different boxes to hear what interesting sounds you and the baby can make.

Let the infant hear different musical instruments. If you have a piano, hold the infant by the keyboard and let them hit the keys. Encourage the infant to hit high sounds and then low sounds.

Infants will enjoy listening as someone else plays the piano, too. You also may want to use guitars, autoharps, bells, and percussion instruments.

Keep a fun music box on the dressing table to entertain the infant during a diaper change.

Make your own baby proof books. Although infants tend to enjoy the bright colors and the stimulation of books, they are often very hard on books. They tend to bend them, rip pages, and chew on the books. Start by purchasing some clear contact paper. Look through old magazines for bright and colorful pictures of babies, people's faces, or animals. Make several pages by covering the pictures with the clear contact paper. Punch holes on one side of each page. Connect the sheets together with large rings or tie them together with string.



Use bright, printed sheets, blankets, and bumper pads. Infants tend to prefer things that are patterned rather than solid-colored, and they prefer items with high contrast such as black and white stripes or a checker-board design.

Change the angle or location of the crib from time to time to allow the infant different views of the room.

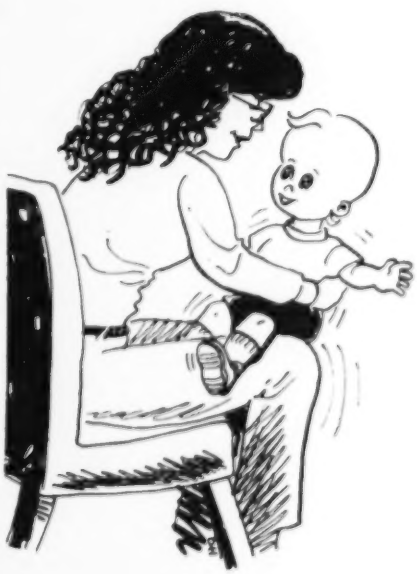
Make a mobile by tying bright objects to a dowel or hanger. (Be sure to hang the mobile high enough to avoid strangulation.) Change the items on the mobile throughout the year.

Make a spinner for the infant to watch. Cut a 6" diameter circle, and color in black and white strips. Use a paper fastener to attach the circle to a straw to form the spinner.

Let the infant see her reflection. Place the infant on the floor in an area where she has plenty of room for free movements of her arms and legs. Next, place a large mirror nearby so she can see herself and her various movements reflected in the mirror. Draw the infant's attention to her reflection. Over time, the older infant will make a connection between her movements and the mirror image.

Sing simple action songs with the infants. This will aid their beginning memory skills. Try these two action songs with the infants in your care:

"Patty Cake"
Patty Cake, Patty Cake, Bakers Pie;
Make me a cake as fast as you can;
Pat it and roll it, and throw it up high;
Mark it with a 'S' for Susan and I.



"Horse Ride"
Place the infant on your knee, facing you. (The younger the infant, the more support you will need to provide.) Bounce your knee up and down at a rate safe for the infant.

(Bounce knee slightly)
This is the way the little girl (boy) rides, little girl rides, little girl rides.
This is the way the little girl rides, all the way to town.

(Bounce knee a little faster and higher)
This is the way the big girl (boy) rides, etc. . . .

(Bounce knee high and fast)
This is the way the cowgirl (boy) rides, etc. . . .

Evaluate the Activities

Activity	How did the infant react?	Changes you would make if you did this activity again
Colorful photos on the wall by crib, by high chair, etc.		
Sound tapes		
Velcro shapes		
Wind chimes		
Homemade shakers		
Use a music box		
Homemade books		
Black and white or bold patterns		
Homemade mobiles		
Mirror play		
Finger paint with pudding		
Use of different textures		
Singing songs		

2 Cognitive Development of Toddlers

Toddlers learn about their world through their senses, so they need lots of sensory activity. A toddler will spend time playing with a container filled with sand, rice, flour, or water. Through repeated filling and dumping of small containers, they learn the terms "full" and "empty" and about the constancy of amount as it relates to objects.

Toddlers can do simple four-piece puzzles and can begin to sort objects in their environment. They begin to match identical objects by their color, size, and shape. As toddlers crawl over, under, and through items in the environment, they begin to put meaning to all the positional terms.

Mastery of the spoken language is a major development. By one year, children use a combination of gestures and sounds to communicate their needs. With continued input from adults in these interactions, the toddler learns to produce sounds that approach the adult's conventional language.

Observe the Toddlers in Your Care

Use the following developmental checklist to assess the cognitive abilities of toddlers in your care:

Ability	Manages skillfully	Can with effort	Will not try
Can identify or label the primary colors			
Begins to correctly use or demonstrate some positional terms			
Can identify and label big and small objects			
Can identify and label heavy and light objects			
Understands concepts of full and empty			
Begins to understand number values of 1, 2, and 3			
Can identify a circle and square			
Recognizes his/her own name when spoken			
Can match together identical objects			
Follows simple spoken directions			
Can label a few common objects			
Communicates simple needs			

Check the Language Development of the Toddlers in Your Care

Take time to observe the toddlers' attempts to communicate with you. Make a list of words or consistent babbles that each toddler uses. For example:

Child	Word used	General meaning
Susan	"baba"	bottle
Lee	"Na he"	big brother, Nathan
Nancy	"ga"	more juice
Susan	"me"	that toy belongs to me

List other non-verbal ways that each toddler lets you know his or her needs and wants.
For example:

Lee grabs your hand and pulls you over to an area.
Susan points at things.
Nancy hands you her coat when she wants to go outside.

List any two or three word sentences the toddlers use.
For example:

Susan	"up me"	Pick me up and hold me.
Lee	"me go"	I want to go too.
Lee	"No mommy work"	I don't want my mom to go to work.

Toddlers understand more language than they can produce, but don't expect too much from them. Keep statements short and simple, and don't get frustrated if you have to repeat. You may even need to physically demonstrate the action or behavior you are expecting from the toddler.

Evaluate Your Home

Do you have toys and equipment that will encourage toddlers' cognitive development? Check either "Yes" (I have enough) or "No" (I need to get more).

Yes	No	Simple sorting boxes.
Yes	No	Toys using different shapes and sizes.
Yes	No	Toys of the primary colors; red, blue, and yellow.
Yes	No	Toys which require simple problem solving such as how to open a door or turn a dial.
Yes	No	Dolls, stuffed animals, cribs, buggies, bottles, and other simple props for dramatic play.
Yes	No	Four piece puzzles.
Yes	No	Simple picture books.
Yes	No	Tapes of animal sounds and other common sounds around the house.
Yes	No	Large farm and/or zoo animals.
Yes	No	Plastic play people/doll furniture.

Try These Cognitive Development Activities with Toddlers

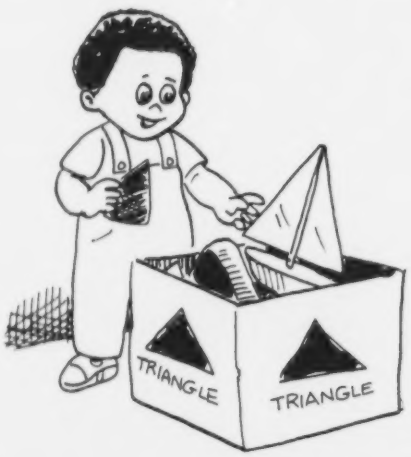
When toddlers begin to label items in their environment, it is a good time to model color and shape terms.

Make jello for lunch using round, square, or triangle cookie cutters to serve the jello. Help the toddler to identify the correct shape as you say the names. "Can you find a square? Point to a triangle piece."

Make a batch of homemade play dough. Divide the batch into three parts. Using food coloring, make some dough red, some blue and the rest yellow. Be sure to use the color labels often as the children play with the dough.

Encourage the children to look around your kitchen and toy shelf for items the shapes of circle, square, and triangle. For example: Circle -- a plastic glass, a wooden block, a plastic plate, a lid of a container, a small ball etc. Square/rectangle -- a wooden block, a small coupon book, a kleenex box, a tape box, etc. Triangle -- one half a sandwich, a folded napkin, a wooden block, etc.

Glue paper shape labels to three cardboard boxes. Then the children can look at the items they find around the house and sort them into the appropriate box. Talk about what each shape looks like. The toddler will enjoy placing the items into the box over and over again.



Cut different shapes from old fabric scraps, wallpaper books, foil, waxpaper, etc. Glue these shapes to small cardboard squares to make a deck of cards. The children can then sort the cards by shape or by textures. Try to mention the shape names often to the toddler. For example: "This is a really soft triangle," or "Feel this rough circle." Store the cards in a plastic container or hook them together with a metal ring to make a shape/texture book.

Sing simple action songs with the children. Simple imitation games and songs will help the toddler in language growth and in learning memory strategies. Make up actions that match the words.

Teddy bear, teddy bear, turn around
Teddy bear, teddy bear, touch the ground.
Teddy bear, teddy bear, turn off the light.
Teddy bear, teddy bear, say good night.

I'm a little teapot, short and stout,
Here is my handle, here is my spout.
When I get my steam up, hear me shout,
Tip me over and pour me out.

Make a greeting card book. Save your old greeting cards. Cut several pieces of tagboard or cardboard the size you want your book to be. Glue a card to each side of the cardboard and cover with clear contact paper. Punch holes on one side and tie the book together with string. Toddlers will begin to label the items in their environment, so provide them with the proper labels: "That is a ball," "See the big ball," "Point to the ball on this page."

Make other books of animals, the child's favorite toys, photos of family members or other children in your care, signs of the different seasons, or cars and trucks.

Make a guessing box. Cut a small, round hole in each end of a medium-sized box (with lid). Have the child place his hand into one hole. Use the other hole to secretly place a toy into the toddler's hand. Ask the child to guess what the item is before he pulls his hand out.

Make a guessing board. Start with a large sturdy piece of cardboard or a thin piece of wood. Nail or staple the top edge of bright, colored squares of cloth to the board. Tape different pictures of the children, or of other items under each flap of cloth. Encourage the toddlers to guess what is under each square. Be sure to change the items often.

Cut a large face out of tag board. Cut out and color eyes, nose, ears, and mouth. Glue a large piece of velcro to the back of each piece and place the corresponding piece of velcro on the large face. Encourage a toddler to put the pieces on the face in the right locations. As the toddler works, ask her to label each piece. "What is this called?" "Yes, that is your nose." "Where does your nose go on the face?" Ask the toddler to point to her own eyes, nose, or mouth. Then have her touch yours.

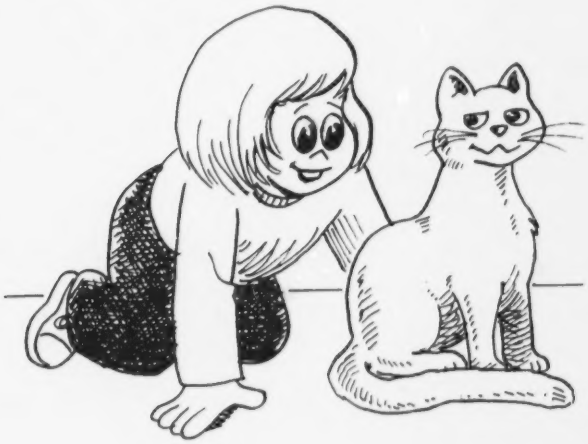
Make a sorting pail. Start with an old coffee can or an ice cream pail. Look for different items in your home that come in shapes such as circles or triangles. Try to locate items that are all about the same size and are too large for the toddler to swallow. Trace around the largest item for each shape and cut out that shape from the lid. You may want to start with only two holes for the young toddlers. Add more as the children's skills improve.

Make a matching animal tape and book. Make your own sound tape that focuses on the sounds that different animals make. "The cow says _____." "The horse says_____." If you can, record the actual animal sounds. Then make a corresponding book by cutting out pictures of these animals from magazines. Start with only two or three animals for the younger toddlers and gradually add new animals as the children learn the first ones. You also could use the sound tape with small plastic animals.

Make shape and texture blocks. Look around your house for empty containers such as salt boxes, oatmeal boxes, shoe boxes, milk or juice cartons, etc. Tape down all ends and lids. Next, locate a variety of materials with which to cover the containers. Some suggestions are scraps of fur, burlap, netting, felt, silk, velveteen, sandpaper, foil wrap, or smooth brown paper. The children can stack the blocks, or they can use them as play props when combined with other toys such as bristle blocks, duplos, and farm animals. Encourage the children to compare how each block feels different from the next block.

Toddlers like toy cars and trucks. (Make sure they are too large to swallow and do not have small parts that can come off). Make roads by placing long strips of masking tape on the floor. Use a wrapped milk carton and a large flat board or book to create a ramp for the cars to roll down. Toddlers may enjoy chasing after the cars just as much as they do rolling the cars down the ramp.

Various sizes of plastic dishes from the kitchen make good stacking toys for toddlers. Sort your collection and try to find three to five different sizes of bowls. This activity will help the toddler learn to compare sizes and later to seriate from smallest to biggest.



Do you have pets toddlers could watch? Toddlers are too young to have responsibility for the care of a pet, yet they do enjoy looking at and touching pets. Be sure to provide close supervision. Toddlers tend to squeeze too tight or may quickly drop a small pet. Talk to the toddler about the pets names, about how the pet feels and looks. Older toddlers may be able to participate in feeding a pet if they are given lots of supervision.

Encourage toddlers to begin understanding the value of the numbers two and three. They may be able to correctly go to the closet and get two matched shoes, or two mittens -- one for each hand. Be sure to point out two and three items to the toddler. When playing with blocks, ask the toddler to stack together two blocks or to hand you three cows. During snack, have the children take two small pieces of cheese at a time. Toddlers can try to roll a ball between two or three children.

Try Sensory Activities

There are several sensory activities that can be done with young children. Try some of the following recipes to give your young children hours of fun.

Cooked Play Dough
2 tsp. cream of tartar
1 cup flour
1/2 cup salt
1 cup water
1 tsp food coloring

Heat flour, salt, and cream of tartar. Mix water, oil, and food coloring. Add to flour mixture and cook over medium heat.

Salt Dough
2 cups flour
1 cup salt
1 cup water

Add water slowly. Knead until smooth. Roll out, cut with cookie cutters and poke a hole or insert a paper clip for hanging. This dough can also be used for sculpting. Bake at 275-300 degrees for about 45 min.

Gunk
1 part cornstarch
1 part water

Mix cornstarch and water together. This can be colored by adding food coloring or dry tempera paint.

Silly Putty
liquid starch
glue

Add equal amounts of liquid starch and glue, adding glue to the starch.

Squeeze Bottle Glitter
1 part flour
1 part salt
1 part water

Mix equal parts of flour, salt and water. Pour into plastic squeeze bottles, such as those used for mustard and ketchup. Add liquid coloring for variety. Squeeze onto heavy construction paper or cardboard. The salt gives the designs a glistening quality when dry. Pictures can be mounted and framed.

Colored Bubbles
1 cup granulated soap or soap powder
1 quart warm water
food coloring
plastic straws
small juice cans

Dissolve soap in warm water; stir in food coloring. Give each child a can about 1/3 full of soap mixture and a plastic straw. (Be sure to teach the children to blow out and not suck in.)

Evaluate the Activities

List the new activities you tried with the toddlers in your care to enhance their cognitive development.

Activity	How did the toddlers react?	Changes you would make if you did the activity again
Serving food in different shapes		
Homemade play dough		
Hunting for objects of different shapes		
Shape or color boxes		
Texture and shape cards		
Simple imitation games		
Guessing box		
Guessing board		
Tag board face		
Sorting pail		
Matching tape and book sets		
Greeting card books		
Shape and texture blocks		
Cars and trucks		
Stacking toys		
Pets		
Matching objects		
Sensory activities		

3 Cognitive Development of Preschool Children

The preschool years are exciting times for young children. Everything around them warrants exploration. Preschoolers are developing cognitive abilities such as memory skills, language, pre-reading and writing skills, mathematical and logical reasoning skills, and science and problem-solving skills.

Preschoolers begin to store and later retrieve information from their long-term memory. They quickly learn simple songs, rhymes, and fingerplays.

Their language development will progress from the toddler's one or two word statements to the five-year-old who can carry on long conversations. They also will pretend to read a book, write or scribble notes to others, and begin to focus on letters and symbols.

Preschoolers begin to understand numbers by working with one-to-one ideas. For instance, one shoe is needed for each foot. Only one item is counted for each number stated. They also begin to classify objects. They may first identify objects with one thing in common, such as color or shape.

Knowing that items come in different values and can be arranged from biggest to smallest, from darkest to lightest, or from heaviest to lightest is a math concept called seriation. Children first begin to understand seriation by learning the main opposites, such as big and little.

Measurement is another important math concept, but preschool children are not quite ready for inches, pounds, and ounces. They are able, however, to observe and to compare obvious physical differences between objects.

Preschoolers are ready to learn about science, but it's more important that they learn the process of science than the facts of science. They need to learn to observe carefully the events happening in their environment and to make intelligent guesses about why things happen the way they do.

You can stimulate the cognitive development of the preschoolers in your care by providing them with activities that are educational as well as fun.

Observe the Preschool Children in Your Care

Use this development checklist to assess the cognitive abilities of preschoolers in your care:

Ability	Manages skillfully	Can with effort	Will not try
Can identify and label the primary and secondary colors			
Can identify and label a square, circle, and triangle			
Recognizes own name			
Can print own name			
Can identify and label some/or all letters of the alphabet			
Points out print found in the environment			
Can produce a three to five word sentence			
Retells events in sequence of first, second, and third			
Establishes 1 to 1 correspondence			
Can successfully hand you five items if asked			
Can group items together by common shape, color, size, or other common trait			
Can seriate objects by increased values of size, color, weight, or amount			
Can make simple comparisons of measurements			
Can memorize a short song or rhyme			
Observes and then describes the details of events			

Evaluate Your Home

Do you have story books that can be read out loud to the children? Research has shown that repeated reading of the same stories helps a child to develop language and later reading skills. How often do you read to the children you care for?

Do you offer a print rich environment? Are the children exposed to adults who read books, magazines, and newspapers? Children gain an understanding of the purpose and function of the printed word when you expose them to lists you make, to letters you write, to invitations, or thank you notes. Do you take time to point out print found on food packaging or advertisements?

Do you take time to listen to and engage in conversation with each individual child? Sometimes we get so busy doing things that we forget to take time to just enjoy talking with the children.

Do you have time to sing songs, recite rhymes, or do fingerplays with the children?

Do you have toys that children could use to develop mathematical skills? Check your toy shelf for several small objects that the children can use to match one to one. Some suggestions are dolls and doll beds; small cars, trucks, tractors, and wagons; small play people; plastic animals; and small blocks.

Do you have different sizes of the same types of objects? This would help the children develop seriation skills.

Do the children have access to string, paper, scales, and different sizes of containers so that they can begin to measure and make simple comparisons between objects?

What simple science equipment might you have in your home for children to explore? Some items to look for: magnets, magnifying glasses, pulleys, bug nets and jars for observations, ant farms, smooth boards for ramps, different types of balls, seeds and pots to plant into, and large dish tubs.

Check your kitchen cupboards for items that create interesting reactions when combined. For example, baking soda and vinegar; cornstarch and water; or flour, salt, and water. Is there an area in your home where the children can explore with these objects without fear of making a mess or spilling?

Try These Cognitive Development Activities with Preschool Children

Go for walks and look for other words or symbols. Are there road signs in your area (stop, yield, or railroad)? Is there a street sign on your corner? Do any of the houses or buildings have signs on them? When you get back home, give the children a collection of small boxes and have them try to build a small city scene. Have the children create labels for the store, the school, or the post office. They can draw in the roads and label them with street and traffic signs. (Remember, the children will not be able to write or spell the words correctly. They will try to imitate the labels through their scribbles.)

Look through magazines, newspapers, and advertisements for symbols and names of common fast-food restaurants and major department stores in your area. Children can cut these out to glue onto their city buildings or they can use them as part of an art project.

Help children begin to recognize the letters in the alphabet. This is another way to assist children in developing pre-reading and writing skills. Point out the first letter in each child's name when you see them in books or magazines. Most preschool children are not ready to learn the whole alphabet at once, but they will begin to identify the letters found in their own names.

Cut out letter shapes the next time you make cookies or jello jigglers. Some cereals, soups, pasta and crackers also come in the shape of letters.

Encourage children to draw letters in the sand box using a large stick. Have them pretend to send secret messages to the other kids. Wet sand also can be molded into the simple letter shapes, or have the children use their own bodies and work together to make the shape of different letters. Have them lay down on the floor in the different patterns.

To help promote language development encourage the children to make their own story books. They can draw out the pages, design fancy covers, and then staple the pages together into books. Either you can help to write in the words for the story they make up, or let the children use a simple-to-operate tape recorder to make a tape to go with their books.

Preschool children enjoy making up puppet shows. The children can make up and then tape a story for the puppets to perform.

Children also enjoy acting out short stories or rhymes. Make up a few cat costumes by cutting construction paper to form a band the size of the children's head. Staple to this band two pieces of paper cut to look like ears. The children can then act out the poem "The Three Little Kittens Who Lost Their Mittens."

Preschoolers can learn one to one correspondence by setting up different play scenes. Lay out an old blue blanket to be a small lake. Have the children locate blocks, old books, or other objects to use as pretend boat docks. Then encourage the children to park one boat at each dock.

Children can use blocks, sticks, or other objects to create different sizes of pens. They can create a farm scene and then place

one animal in each pen or give each mother animal a baby. They also could group the animals into the pens by traits such as all the big ones in one pen and the small ones in another. They might separate the animals by common colors or breed. Change the pens around and the children can create a zoo scene. They can sort and group the plastic animals and then give each one a shelter to live in or a dish of food to eat.

Daily household tasks can teach children math skills. Let the children help set your table for snacks. They can place one plate and one napkin for each child. Older children will learn to seriate as they help you put the dishes away from biggest to smallest. If you have laundry that needs to be folded, involve the children in trying to sort objects into groups of items that they think go together. They can make a pile of socks, a pile of shirts, etc.

Measure with string. String can be a useful tool to help preschool children begin to understand measurement concepts. Have the children compare the length of different objects in your home. How long is your kitchen table, the piano bench, the TV set, or the end table?

Trace around bodies. Use some old newspapers and tape them together to make large sheets of paper. Have one child lay down on the paper and have another child use a dark marker to trace around the child's body. The children can then color in the hair, face, and clothes. Hang up the tracings so for the children to compare who is the tallest. Children also can trace around their own hands or feet. In warm weather, have the children make wet hand and foot prints on a dry sidewalk. In the winter, take time to point out the different sizes of foot prints you see in the snow.

Plant different seeds for the children to watch grow. In the spring, the children will enjoy helping to plant a real garden. If you have room, leave a small area to be the "kids' garden." They can learn how to water and care for plants, as well as discover the different foods that we can eat from a garden.

Adopt a tree. Choose one or two different types of trees. Each month, on the same day, go out with the children to observe how the tree is changing. You may even want to take a picture of the tree to help the children remember what it looked like last time. The children could make a book with their own drawings of the tree, or they could make a collection of the tree's leaves throughout the year.

Make a bird feeder from an old milk carton. Cut out a hole large enough for the birds to enter. The children can hang the feeder on a low tree branch and fill it with dry bread crumbs. Help the children to identify the different types of birds which come to eat.

Go on field trips. Ask the children's parents if you may take the children on a field trip. Children would enjoy learning about animals at a local pet store, at the zoo, or at a nearby farm.

Explore magnets. Magnets are fun to play with. The children can explore which items the magnet will pick up and which it will not. They can even try to use the magnet on a board or in a pan of water or flour to see what materials a magnet will pull through.

Float and sink objects. Provide the children with a tub of water. Let them collect different objects from around your house. See if the children can predict if the item will sink or float. The children could even make a chart of what they observed each item do.

Evaluate the Activities

List the new activities you tried with the preschool children in your care to enhance their cognitive development.

Activity	How did the child react?	Changes you would make if you did the activity again
Take a walk-look for signs and print		
Build a small city from boxes		
Serve letter shaped food		
Form sand shapes		
Form people shapes		
Create own books		
Make up puppet shows		
Create lake, zoo or farm scenes		
Help do household tasks		
Measure with string		
Trace bodies		
Plant and observe seeds		
Adopt a tree		
Care for a pet		
Make a bird feeder		
Go on field trips		
Explore magnets		
Float and sink objects		

4 Cognitive Development of School-Aged Children

As children reach school age they begin to reason differently about the world. They are more logical and they observe more carefully. School-age children are able to consider several aspects of a situation at one time. They can make complete groupings of items and have stable number concepts. Schoo-aged children like to engage in problem solving activities.

Some school-aged children really enjoy reading and creative writing activities. By this age, they also have learned several methods for memorizing information. They enjoy singing songs and doing games that challenge their memory skills.

The cognitive abilities of a kindergarten child or first grader will be quite different from those of a third grader. Therefore, it's important to observe carefully the children you care for to determine their individual abilities and interests. As a provider, you will want to offer activities that encourage the children's cognitive development. Remember, however, that after children have been in school for several hours, they may need activities that are stimulating but not too tightly structured.

Observe the School-Aged Children in Your Care

Use this development checklist to assess the cognitive abilities of the school-aged children in your care.

Ability	Skillfully	Can with effort	Will not try
Can identify and label all colors			
Mixes colors together to create new colors			
Can identify and label3-D shapes and other multi-sided shapes			
Writes both first and second names			
Knows address and phone number			
Knows letter sounds and some blends			
Reads some sight words			
Reads simple story books			
Understands numbers through 10? 15? 20?			
Can count to 20			
Can count to 100			
Can do simple addition or subtraction problems			
Can form groupings using at least one common criteria			
Can seriate 6 to 10 objects of increased value			
Can use inches and pounds to make simple measurements			
Can memorize several lines of text			
Describes in detail an earlier event			
Makes predictions of the outcome of experiments			

Evaluate Your Home

Do you have books appropriate for school-aged children? They need both easy-to-read books as well more difficult books that you can read to them or with them. These books should deal with subject matters that interest the older child.

Do you have a quiet place where school children can curl up and read, work on projects, or store collections? School children need private places where they can do their activities without fear of the younger children destroying their hard efforts.

Do you have time to interact and engage in one-on-one conversation with the school-aged children? Be careful not to overlook their needs; this can happen, because they seem so self sufficient.

Do you have board games and puzzles difficult enough to offer the school-aged child a challenge? You may need a variety of levels if you care for school children of different ages.

Try These Cognitive Development Activities with School-Aged Children

Make collections. Children may enjoy collecting and organizing collections of stamps, coins, dolls, or baseball cards. This is a great way for them to spend time after school. The children can either work together on a collection to keep at your house or each child may want to start a personal collection to keep.

Help the children find a note book or box in which to keep their items. For some collections, special sheets or booklets can be purchased to assist the collector in keeping the items in mint shape.

You also may want to make collections of different insects, bugs, or leaves that the children can find outside. Place a piece of styrofoam into the bottom of a small, school pencil box. The children can pin the insects into this box for safe keeping. Use clear contact paper to cover leaves to prevent them from being damaged by handling. Encourage the children to use resource materials to identify and label the objects they collect.

Make up scavenger hunts or treasure maps with hidden clues for the children to follow to solve a mystery. The school-aged children evenmay enjoy making up a simple scavenger hunt for the younger children.

School-aged children like to do projects. Give them a large appliance box and let them use their problem-solving skills to figure out how to make it into a bus, space ship, or a play house for the younger children. Be sure to give them lots of tape, string, paper, and markers, so that they can let their imaginations go as they design the various details of their creations.

Do a large multi-piece puzzle. The children will need a quiet out-of-the-way place where they can leave the puzzle up until they finish it.

Have the children write a play. They can memorize their parts, design costumes for the characters, and then present the play for the younger children. If you only care for one or two school-aged children, have them write a puppet story instead. The children will have to design and create the puppets to use for their show.

Have the children write and illustrate a story book.

Have the children produce a newspaper to share with other family home day cares. They could act as reporters to collect the important news and to write up stories or activity ideas for the other children to try.

Have the children do measurement activities. They can help you measure out the ingredients when you cook. The younger school children may still need help with fractions. As the children do other projects, be sure to give them rulers and yard sticks and encourage them to measure how long they want the object to be.

Encourage the children to explore their environment. Together you and the children may want to go to the local library and check out books that give ideas of simple science experiments they can try. Help them learn to make predictions. Make up some simple charts and, before the children start their experiment, have them record their guesses about the outcome.

Evaluate the Activities

List the new activities you tried with the school-aged children in your care to help foster cognitive development.

Activity	How did the child react?	Changes you would make if you did the activity again
Collecting stamps, coins, dolls, or baseball cards		
Collecting insects or leaves		
Organizing scavenger hunts		
Doing projects using a large box		
Doing multi-piece puzzle		
Writing and producing a play or puppet show		
Writing and illustrating a story book		
Producing a family day care newspaper		
Measuring		
Conducting science experiments		

In-Home Day Care

The attached home study guide is part of a series of three books for in-home day care providers:

- **Helping Children Develop Socially and Emotionally**
- **Helping Children Develop Physically**
- **Helping Children Develop Cognitive Skills**

An accompanying video tape is available for check out from your local Extension office. Funding for this project is provided by Child Care Services.

A newsletter series "Family Day Care Connections" is available free of charge. To receive a copy, return one of the postage paid cards in this book or write:

SDSU Extension Service
Family Day Care Connections Newsletter
Ag Hall 152, Box 2207D,
South Dakota State University
Brookings, SD 57007-0093

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